

PHENIX WEEKLY PLANNING

7/26/2007

Don Lynch

2007 Summer Shutdown Schedule

| <u>Item</u> | <u>Start</u> | <u>Complete</u> |
|---|--------------|-----------------|
| RPC Factory set up | Started | 2011? |
| HBD West repair | Started | 9/14 |
| MuID collar removal, MMS move S. | Done | Done |
| Disconnect EC and Move to AH | Done | Done |
| C-A fold scaffolding, remove lift & ladder, disconnect gas sniffers | Done | Done |
| PHENIX techs disconnect water, elect., gas, fibers, RXNP blue cable | | |
| Mike Rau remove lift wiring, disconnect TOF blower | Done | Done |
| Move EC to AH | Done | Done |

Note: C-A Cooling water improvements are planned for this summer. This may involve interruption of water cooling for most/all of the summer. Please let me know if water cooling is necessary for any subsystem operations this summer.

2007 Summer Shutdown Schedule

| | | |
|---|-------------|------|
| RPC Engineers coordination visit | Done | Done |
| Reconnect EC for maintenance in AH | Done | Done |
| Move MuID collar to AH | Done | Done |
| Misc. Subsystem Maint./repair/Upgrade | In Progress | 10/1 |
| Misc. Infrastructure Improvements | In Progress | 10/1 |
| Install IR floor plates, rolling cart & move manlift to IR | Done | Done |
| Remove MPC South (wp needed) | Done | Done |
| MPC South upgrade/ bench tests | In Progress | 9/20 |
| Remove SouthEast Vertical Lampshade | 7/30 | 7/30 |
| Move CM south | 8/6 | 8/6 |
| Remove MPC North (wp needed) | 8/6 | 8/31 |
| MPC North upgrade/bench tests | 8/13 | 9/20 |
| MuTr Capacitor Decap (wp needed)) | Started | 9/30 |

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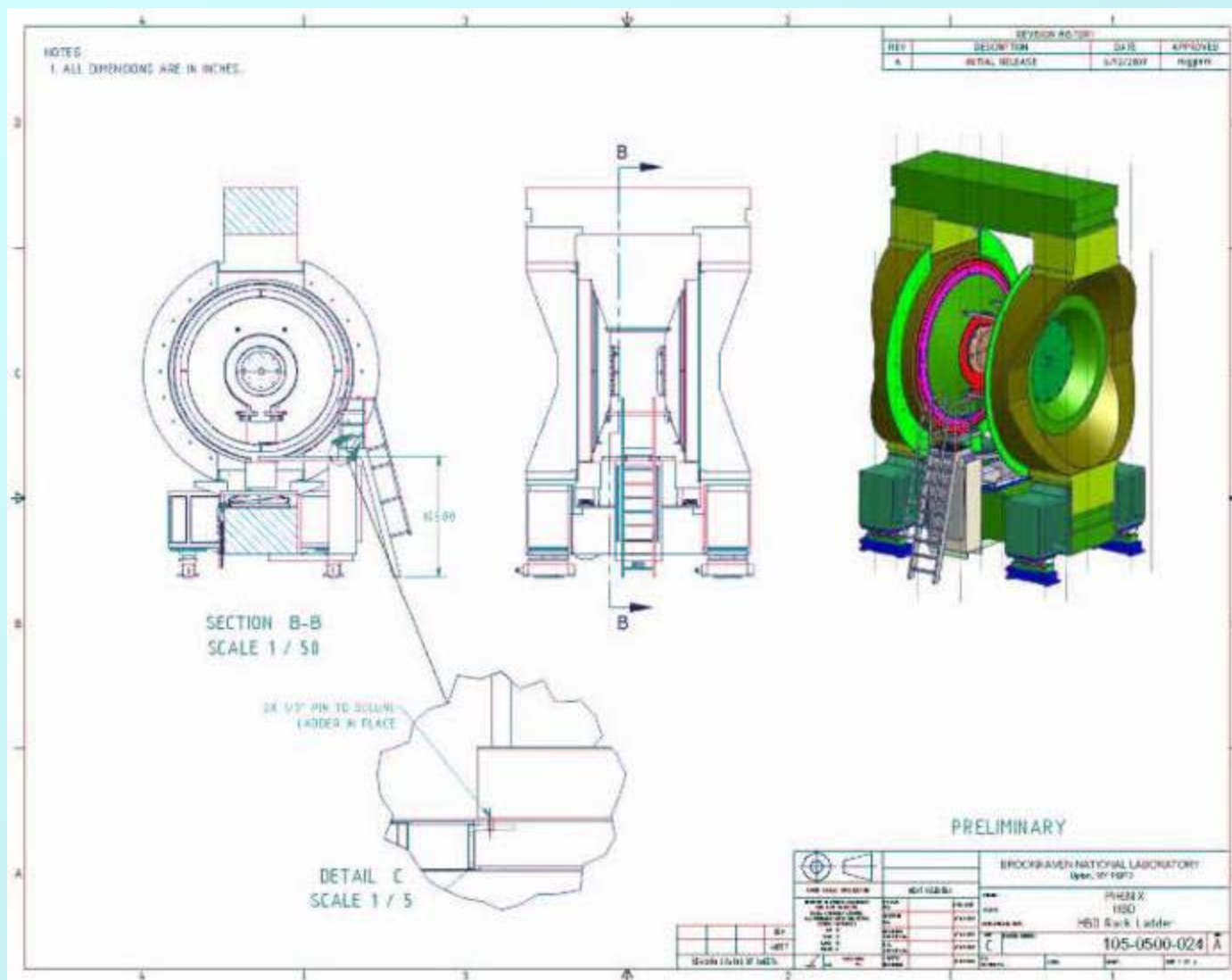
2007 Summer Shutdown Schedule (cont'd)

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| <u>Item</u> | <u>Start</u> | <u>Complete</u> |
|--|-------------------|-----------------|
| MuTr FEE Prototype (wp needed) | 8/6 | 9/20 |
| DOE Safety Audit (preliminary) | 8/6 | 8/7 |
| Install CM access ladder (wp needed) | 8/13 | 8/17 |
| Move CM North | 8/13 | 8/13 |
| Repair RXNP Phototube | 8/13 | 8/20 |
| Remove HBD East | 8/15 | 8/31 |
| Reinstall MPC North (wp needed) | 8/20 | 8/31 |
| Summer Sunday Tour | 8/15 | 8/21 |
| DOE Safety Audit (intensive) | 8/20 | 8/31 |
| Install CM Crane | postponed to 2008 | |
| C-A arc flash work (no power) | 8/23 | 8/24 |
| Neutron shield support design & install. | 8/23 | 9/30 |
| HBD West Mechanical/Gas Reinstall | 9/23 | 9/24 |
| HBD EAST Mechanical/Gas Reinstall | 9/24 | 10/1 |
| HBD Electrical Reinstall | 9/17 | 10/8 |
| Reinstall MPC South | 9/20 | 9/26 |
| EC Roll In | 10/8 | 10/10 |
| DC East repair | 10/11 | 10/12 |
| HBD/MPC/Other TBD Commissioning | 10/1 | 10/31 |
| Start of Run 8 | 11/1 | 11/1 |

CM Ladder/Stair Shutdown Access

700N + 300P + 500B - 300T



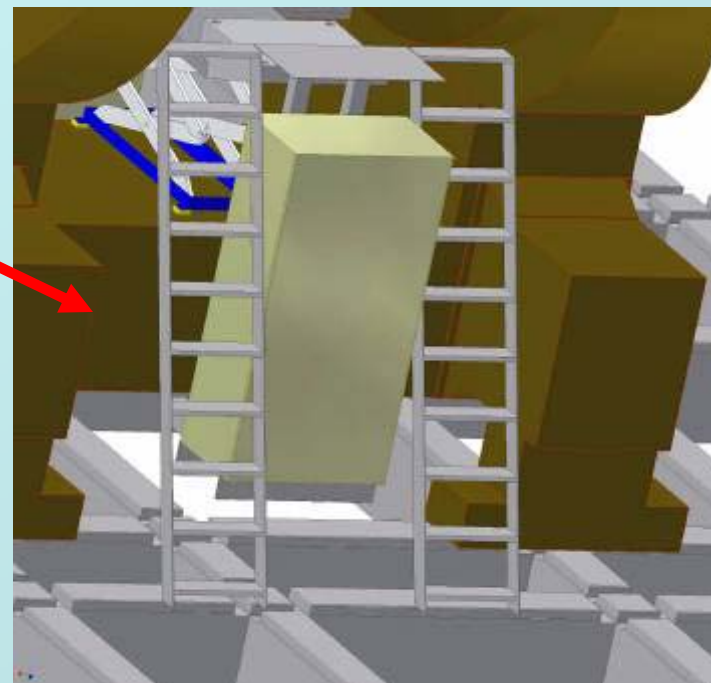
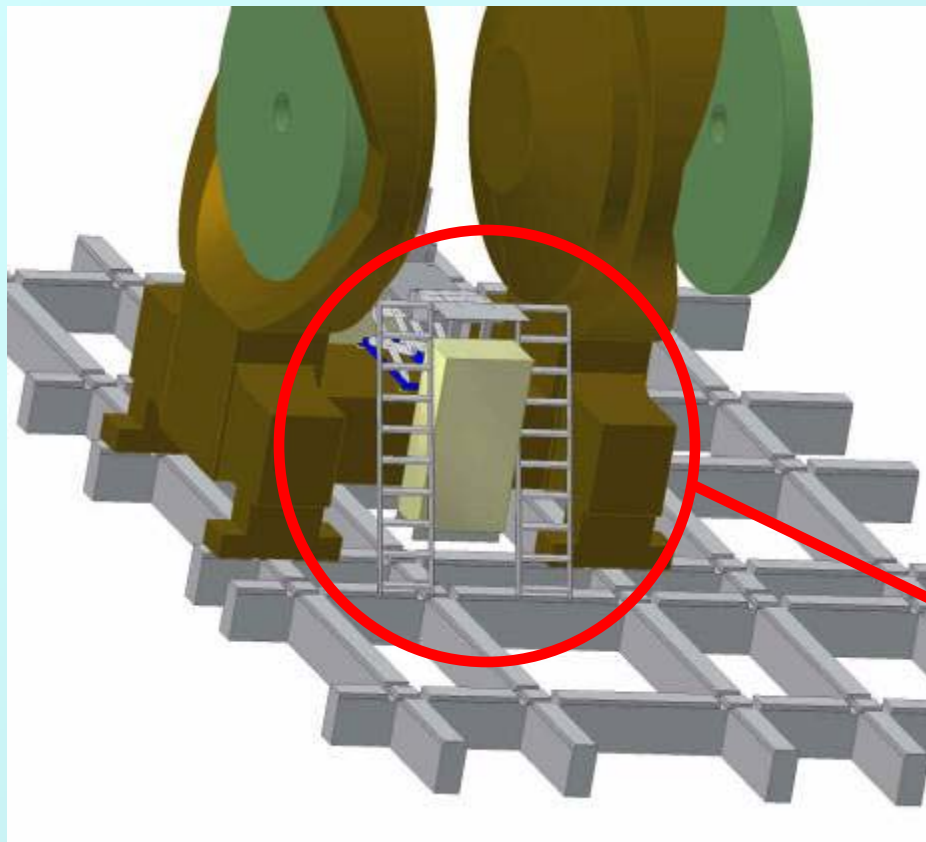
- PO in progress
- To be used during shutdown (EC out) only.

CM Ladder/Stair Run Access

Features:

60 deg. Alum ships ladder
(1 or 2) lifts off to store vertically
for run and/or to access rack
doors. (folding rail not shown)

Step up platform above rack and
cables.



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Station 1 access plan

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new picture &
CM access concept

Preliminary Design
Concept:

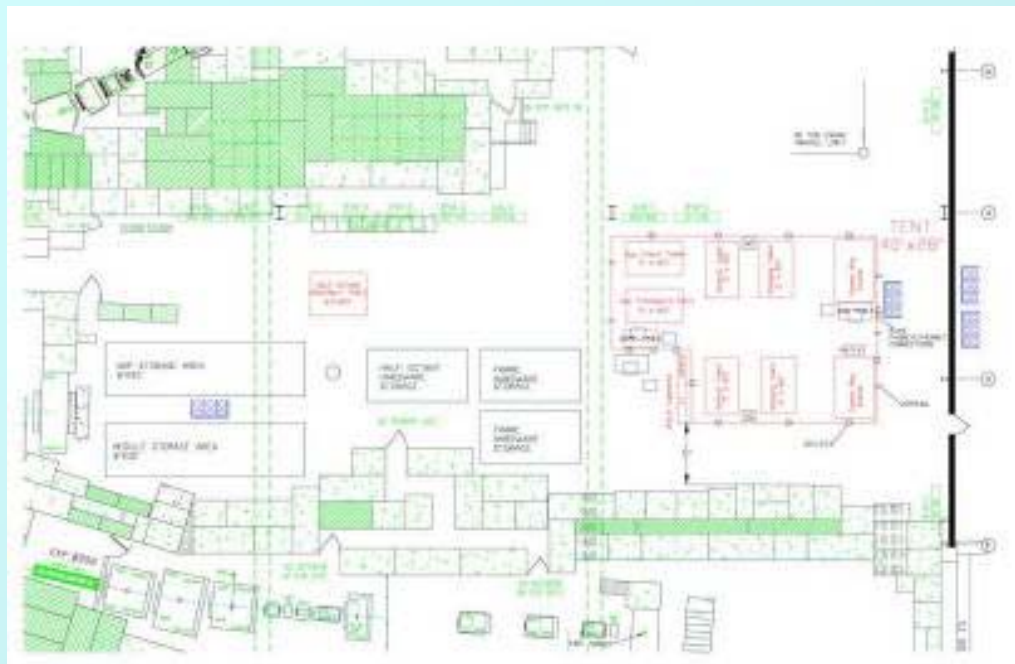
3 levels

Bottom level just below
Station 1

Mid level 2 pcs just
below MPC cavity

Top level over the beam
pipe just above MPC
cavity

RPC Factory



Work is continuing. Please make sure that all work in 912 is properly planned and approved. If in doubt consult with Don Lynch or Paul Giannotti.

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RPC Factory Issues

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A. Factory Set Up:

1. PHENIX tech support:

Gas: John T.

Elect: Frank T.

Mech: Kenny J.

2. Electrical work moving forward.

3. Tent to be cleaned, floor painted, and tent sealed

4. HVAC specs 18,000 BTU AC 4 HEPA filters, internally recirculated

5. Gas distribution design TBD

B. Safety Issues: Per Yousef's Minutes from review

- Calib./testing of SF6 monitors
- Gas system schematic in progress
- Gas system construction after approval
- Fire protection *Paul to consult with Joe Lavesques*
- Gas environmental impact *Ralf update review numbers when the system design is complete*
- Electronics/equipment review
- Factory users safety manual *interim Worker plan complete; final production version needed*

C. Factory Equipment

- Design & Fabrication (cosmic ray test stand) *Ali has suggestions*
- Layout & installation shelves & cranes *not going to use jib crane, Riggers will set up A-frame*

Brett to provide slides

RPC Mockup Test



TESTING - SUBROT + NOOL

7/26/2007

Weekly Planning Meeting

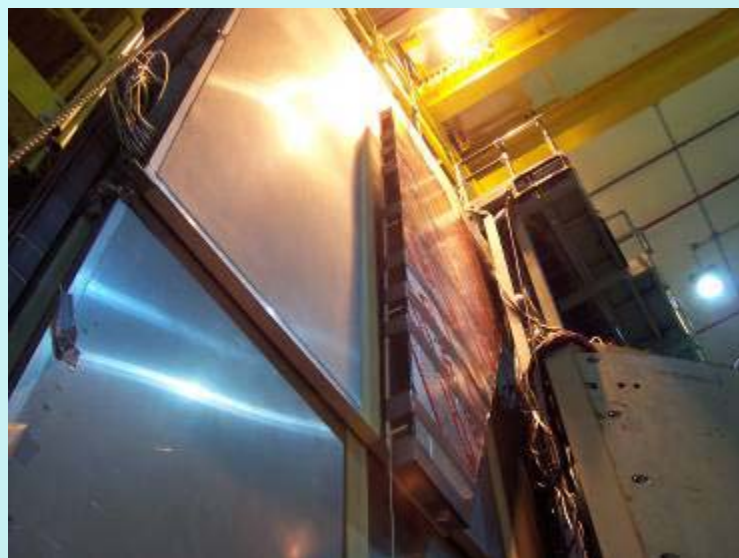
RPC Mockup Test



7/26/2007

Weekly Planning Meeting

RPC Mockup Test



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Weekly Planning Meeting

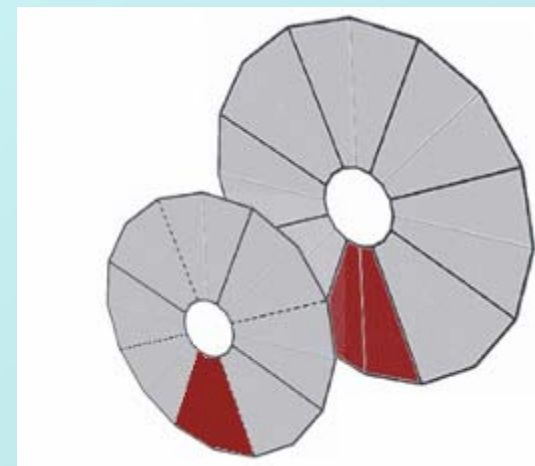
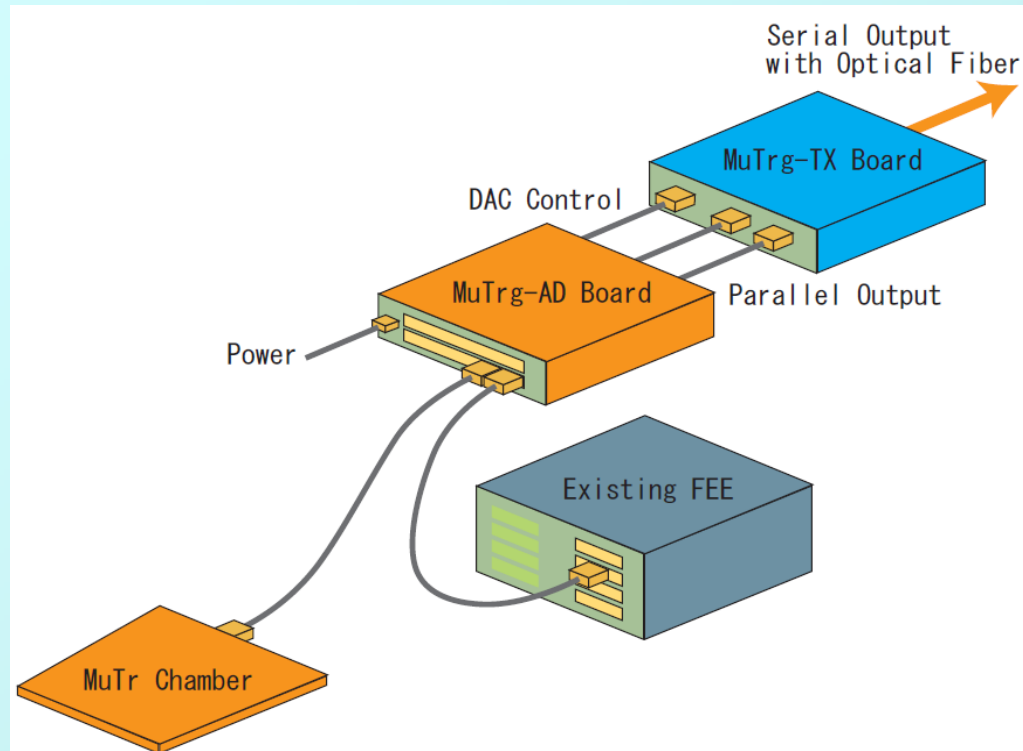
Other Work



- Empty (except clean metal waste) and discard old container
- VTX prototype
- NCC prototype & electronics
- Neutron shielding test
 - Shield support design in August
 - Install in September for Run 8 tests



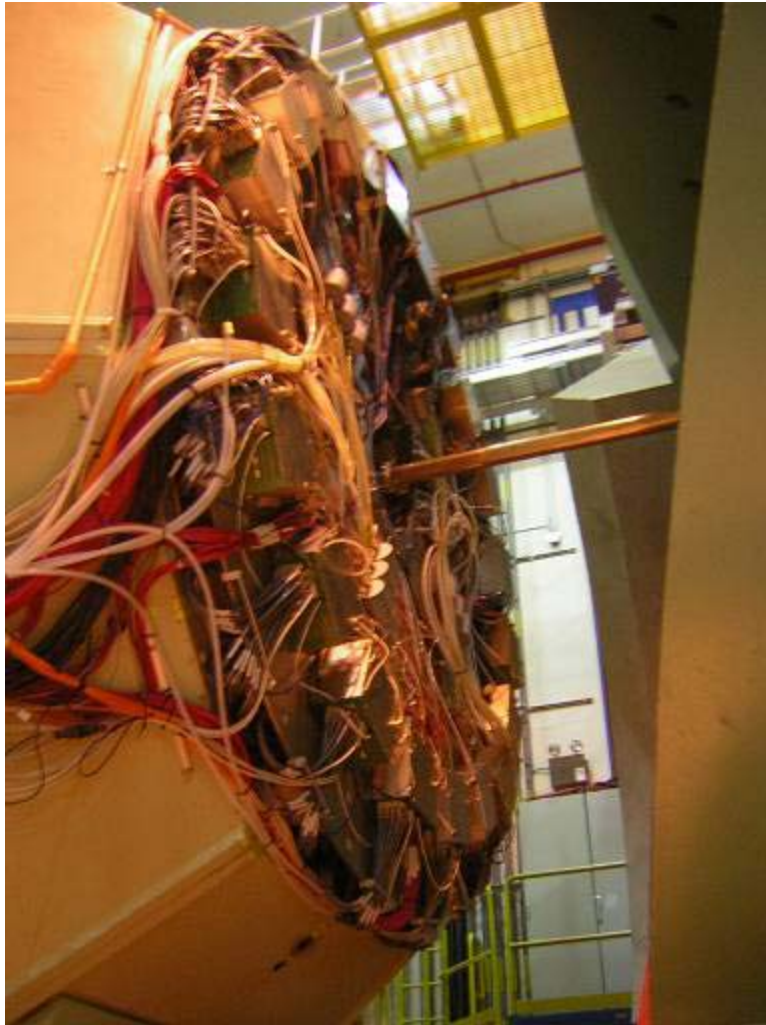
MuTr FEE Upgrade Prototype



Station 2:
5 AD board Chassis
3 TX board Chassis

Station 1:
3 AD-Board Chassis
2 TX-Board Chassis

Station-1



3 AD-Board Chassises
2 TX-Board Chassises

Need to be accessible
to St-1 during test period

Need Man Lift

No plan how to mount yet

Hardware Requirements

- MuID North + MuTR North (No Magnetic-field at all)
- Gas :
 - Phase-I : 8/14 - 8/23
 - MuID : CO₂
 - MuTR: Ar + CO₂
 - Phase-II: 8/23 - 9/10
 - MuID : CO₂ + C₄H₁₀ (recirculation mode)
 - MuTR: CF₄ + Ar + CO₂ (recirculation mode)
- Dry N₂: not much flow
 - Manifold + 1/4 inch tubes
- Cooling Water : not much flow
 - Manifold + 1/4 inch tubes
- Power :
 - Install 8 AD & 8 TX boards
 - $102\text{W} = 8 * 9.4\text{W}(\text{AD}) + 8 * 3.4\text{W}(\text{TX})$
 - Power from MuTr LV module
 - unused 12ch ($7.5\text{V} * 4\text{A} = 30\text{W}/\text{ch}$)
 - LV cable * 12 pairs. LV module->Octant.7 (st-1,st-2).

Schedule

- Prior to 8/6: Approval & Permits
- Aug.6 : Preparation for Installation
- Aug.13 : Start Installation
- Aug.16 : Debugging
- Aug.23 : Production data taking.
- Sept.10~20 : Finish data taking
- Sept.10~20 : Start Uninstall
- After 9/10: Test MuTr for unintended damage



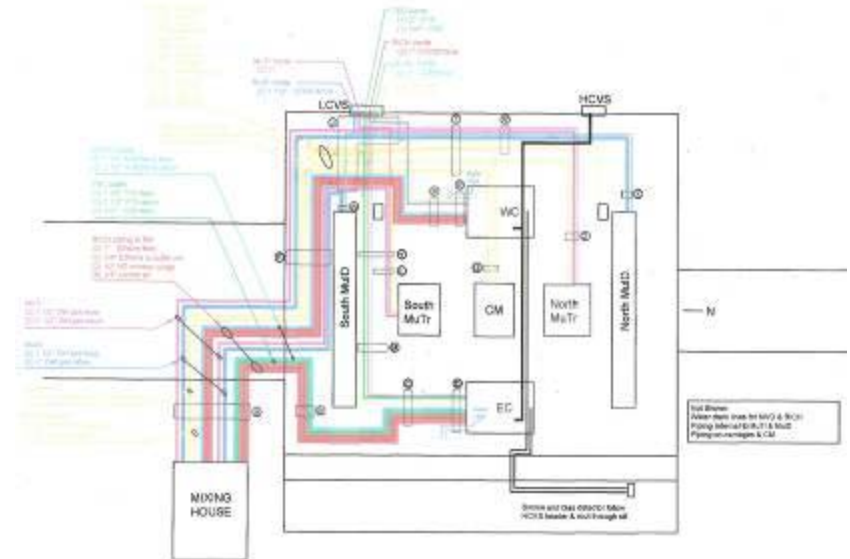
Phase-I



Phase-II

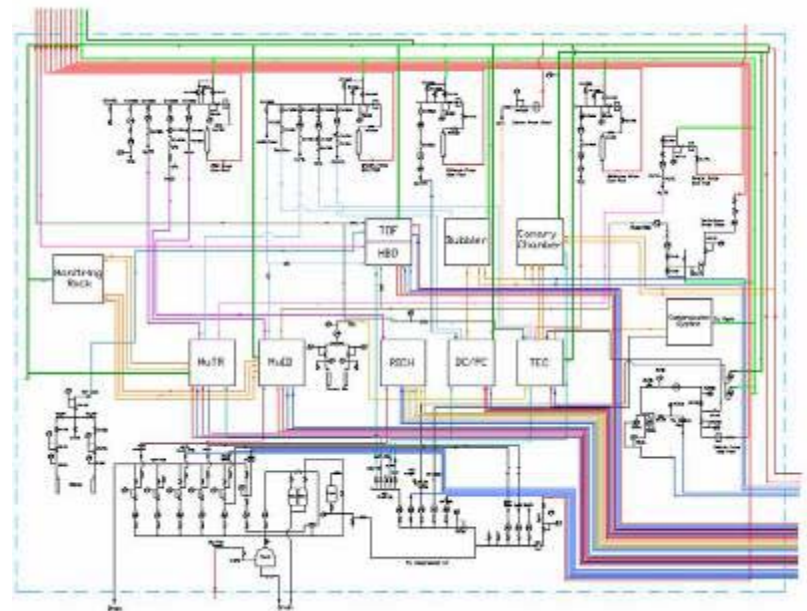
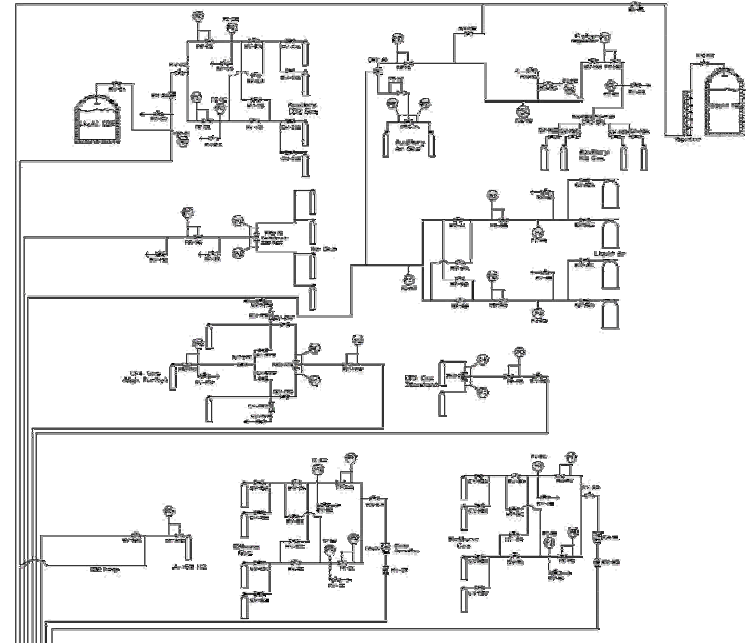
UPDATING PHENIX GAS SYSTEM DOCUMENTATION

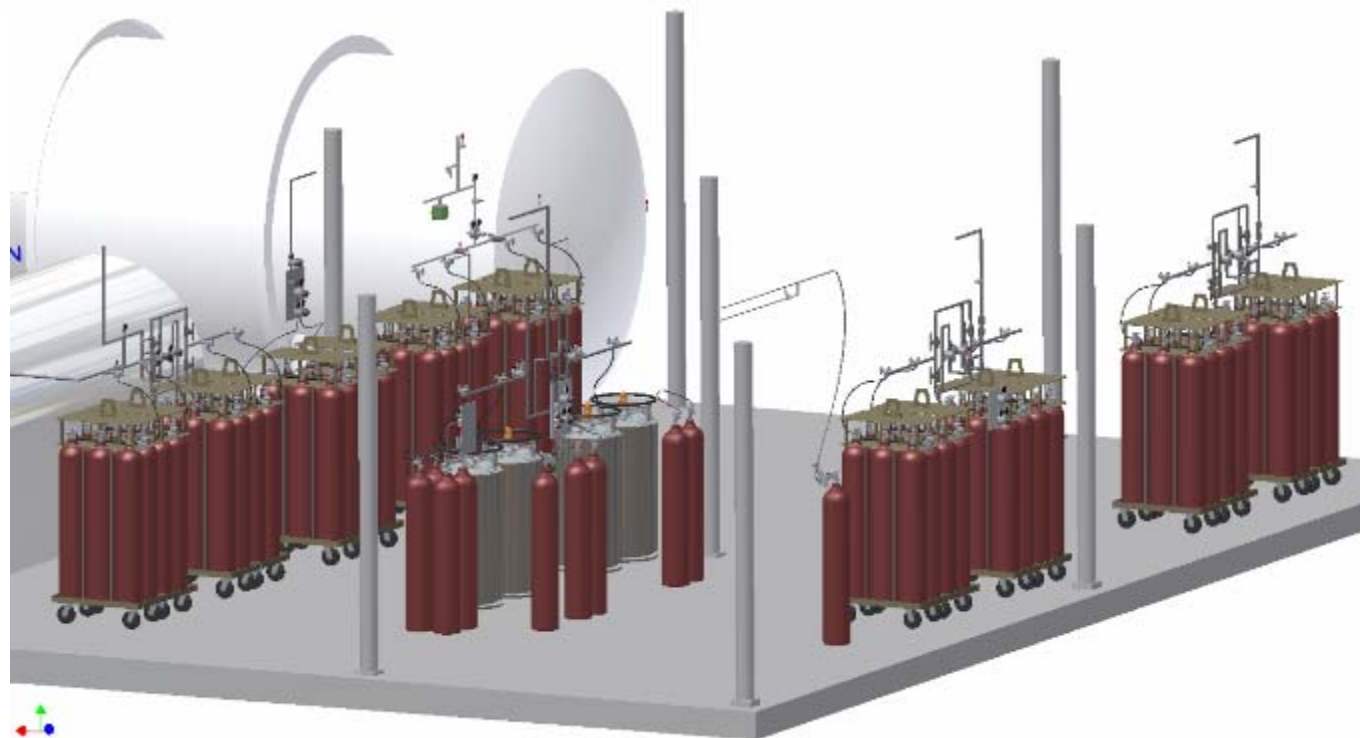
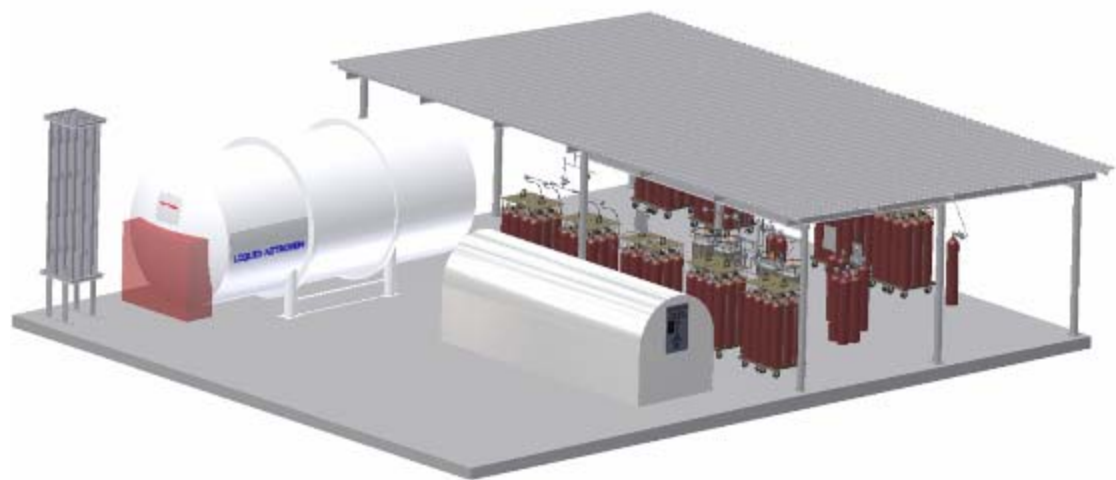
- Most documentation is not up-to-date
- There are many incomplete or missing documents
- Needs to meet DOE standards regarding documentation
- Proper documentation is integral to communicating information safely and efficiently



UPDATING PHENIX GAS SYSTEM DOCUMENTATION

- Collected existing gas system documents
- Updated gas system spreadsheets
- Created schematic drawing of the gas pad and mixing house
- Created a 3-D assembly of the gas pad
- Updating this documentation helped:
 - Show how the gas pad and mixing house are actually setup
 - Call attention to missing components such as check valves
 - Display layouts and show where free space is for future additions





Safety/Security Notes:

1. There is a DOE ISM audit in August, please schedule cleanup periods for your spaces and your offices. The first thing they will see is the condition of our facility and get a first impression from that. Cleaning the area should also be done at the end of each job during the shutdown. The criteria should be that the area looks cleaner when the job is done than it looked before the job started.
2. Definition of worker planned work - we all need to be able to explain this when the DOE auditor talks to us:

This term has replaced "skill of the craft" for work planning at BNL. Worker planned work is more descriptive of what is actually always done. All work is planned whether documented on a green permit or not. Worker planned work does not require a permit, but still requires planning.
3. Wear your badge at all times. The only valid exception is when wearing your badge may interfere with work or create an unsafe condition. Put your badge back on after task is completed.

- | | |
|------|--|
| 2007 | HBD Repairs, DC (minor) repairs), MPC N&S upgrade, MuTr FEE upgrade prototype, infrastructure upgrades & repairs, misc. subsystem work |
| 2008 | MuTr FEE upgrades 1 octant 1&2 S, Cu absorber test, RPC3 S, infrastructure upgrades & repairs, misc. subsystem work |
| 2009 | Scaffolding in MMS and MMN, MuTr FEE N&S stn. 2 & 3, MuTr N&S stn. 2 & 3 repairs, RPC2 S&N, RPC3 N, Cu absorbers, infrastructure upgrades & repairs, misc. subsystem work |
| 2010 | Remove HBD & RXNP, remove beampipe, DC West upgrade, VTX barrel, RPC1 N&S, MuTr FEE stn. 1 N&S, MuTr stn. 1 N&S repairs, infrastructure upgrades & repairs, misc. subsystem work |
| 2011 | NCC S, FVTX, infrastructure upgrades & repairs, misc. subsystem work |
| 2012 | NCC N, upgrades contingency & wishlist, infrastructure upgrades & repairs, misc. subsystem work |

** Years refer to the shutdown year and follow the run with the similar number (i.e. work in 2007 is to be done in the shutdown that follows run 7, and so on)*

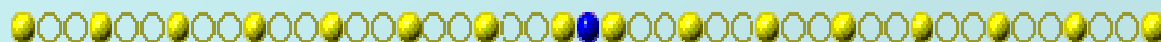
Where To Find PHENIX Technical Info



I'm outa here
For the next
week or so

I'll be back
8/6

Links for the weekly planning meeting slides, long term planning, pictures, videos
and other technical info can be found on the web site:



http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

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